

WHAT IS CLAIMED IS:

1. An arrangement of components for use in a power line communication system, comprising:

a modem for providing an output to a power line;
a sensor for sensing a parameter of said output; and
a controller for adjusting a power of said output based on a value of said parameter.

2. The arrangement of claim 1, wherein said controller maximizes said power while limiting said power to a predetermined level of electromagnetic radiation.

3. The arrangement of claim 1,
wherein said output includes a first frequency sub-band and a second frequency sub-band, and
wherein said controller adjusts a power for said first frequency sub-band and a power for said second frequency sub-band.

4. The arrangement of claim 1,
wherein said modem provides said output by sequentially transmitting over a first frequency sub-band and a second frequency sub-band, and
wherein said controller adjusts a power for said first frequency sub-band and a power for said second frequency sub-band.

5. The arrangement of claim 1, wherein said parameter comprises an electromagnetic radiation.

6. The arrangement of claim 1, wherein said parameter comprises a signal current in said power line.

7. The arrangement of claim 1, wherein said parameter comprises a signal voltage on said power line.

8. The arrangement of claim 1, wherein said parameter comprises a magnitude of an output current in phase with an output voltage.

9. The arrangement of claim 8, wherein said sensor comprises a phase detector that receives an input indicative of said output voltage and an input indicative of said output current.

10. The arrangement of claim 1,
wherein said output produces an electromagnetic radiation intensity from
said power line,
wherein said parameter and said electromagnetic radiation form a ratio, and
wherein said controller adjusts said power to compensate for variations in
said ratio over a transmitter frequency band of said modem.

11. A method employed in a power line communication system, comprising:
providing an output from a modem to a power line;
sensing a parameter of said output; and
adjusting a power of said output based on a value of said parameter.

12. The method of claim 11, wherein said adjusting comprises maximizing said power while limiting said power to a predetermined level of electromagnetic radiation.

13. The method of claim 11,
wherein said output includes a first frequency sub-band and a second
frequency sub-band, and
wherein said adjusting comprises adjusting power for said first frequency
sub-band and power for said second frequency sub-band.

14. The method of claim 11,
wherein said modem provides said output by sequentially transmitting over
a first frequency sub-band and a second frequency sub-band, and
wherein said adjusting comprises adjusting a power for said first frequency
sub-band and a power for said second frequency sub-band.

15. The method of claim 11, wherein said parameter comprises an
electromagnetic radiation.

16. The method of claim 11, wherein said parameter comprises a signal
current in said power line.

17. The method of claim 11, wherein said parameter comprises a signal
voltage on said power line.

18. The method of claim 11, wherein said parameter comprises a magnitude
of an output current in phase with an output voltage.

19. The method of claim 18, wherein said sensing is performed by a phase
detector that receives an input indicative of said output voltage and an input
indicative of said output current.

20. The method of claim 11,
wherein said output produces an electromagnetic radiation intensity from
said power line,
wherein said parameter and said electromagnetic radiation form a ratio, and
wherein said adjusting comprises adjusting said power to compensate for
variations in said ratio over a transmitter frequency band of said
modem.